WHAT IS CLAIMED IS:

1. An airflow management apparatus for usage in an electronic system comprising:

a flexible air baffle that mounts on a chassis of an electronic device in an arrangement that obstructs air flow between an air inlet vent and an air exhaust vent of the electronic device, the flexible air baffle having a thickness that extends across a gap to contact an adjacent vertically-stacked electronic device.

2. The apparatus according to Claim 1 wherein:

the flexible air baffle is constructed from a compliant material that allows for variation in the gap dimension between adjacent devices.

3. The apparatus according to Claim 1 further comprising:

an adhesive layer that firmly secures the flexible air baffle to the electronic device chassis.

4. The apparatus according to Claim 1 wherein:

the flexible air baffle is constructed from a material selected from among a group comprising closed-cell foam rubber, silicone, reinforced silicone, urethane, urethane foam, polyurethane, foam sealant, butyl rubber, rubber, latex, vinyl, compliant metal, and reinforced foam.

5. The apparatus according to Claim 1 wherein:

the flexible air baffle mounts on a chassis of an electronic device within a rack containing a plurality of vertically-stacked electronic devices;

the rack has a frontal inlet air supply and a rear exhaust vent, and is otherwise substantially closed; and

the flexible air baffle has a frontal aperture coupling to the frontal inlet air supply via an airflow pathway and otherwise extends in a solid wall to obstruct air flow laterally and rearward.

6. An electronic device comprising:
an electronic system;
a chassis enclosing the electronic system, the chassis having substantially planar upper and lower surfaces and extending from a first end to a second end;
an air inlet vent formed in the upper surface proximal to the first end;
an exhaust vent formed in the upper surface proximal to the second end; and
a flexible air baffle mounted on the chassis in an arrangement that obstructs air flow between the air inlet vent and the exhaust vent, the flexible air baffle having a thickness that extends across a gap to contact an adjacent surface above the chassis.

7. The electronic device according to Claim 6 wherein:
the flexible air baffle is constructed from a compliant material that allows for variation in the gap dimension between the chassis and the adjacent surface.

8. The electronic device according to Claim 6 further comprising:
an adhesive layer that firmly secures the flexible air baffle to the chassis.

9. The electronic device according to Claim 6 wherein:
the flexible air baffle is constructed from a material selected from among a group comprising closed-cell foam rubber, silicone, reinforced silicone, urethane, urethane foam, polyurethane, foam sealant, butyl rubber, rubber, latex, vinyl, compliant metal, and reinforced foam.

10. The electronic device according to Claim 6 wherein:
the chassis can be inserted within a rack containing a plurality of vertically-stacked electronic devices;
the first end of the chassis is a frontal end and the second end is a rearward end;
the rack has a frontal inlet air supply and a rear exhaust vent, and is otherwise substantially closed; and

the flexible air baffle has a frontal aperture coupling to the frontal inlet air supply via an airflow pathway and otherwise extends in a solid wall to obstruct air flow laterally and rearward.

11. A system comprising:

a rack cabinet capable of holding a plurality of stacked electronic devices;

an air inlet and exit coupled to mutually opposing sides of the cabinet;

a plurality of slots contained within the cabinet and capable of securing the stacked electronic devices; and

at least one electronic device inserted into the slots, the individual electronic devices having substantially planar upper and lower surfaces, and having an air inlet vent formed in the upper surface proximal to the air inlet cabinet side and an exhaust vent formed in the upper surface proximal to the exit cabinet end; and

at least one flexible air baffle, the individual baffles mounted on the upper surface of an associated electronic device in an arrangement that obstructs air flow between the air inlet vent and the exhaust vent, the flexible air baffle having a thickness that extends across a gap to contact an adjacent surface above the upper surface.

12. The system according to Claim 11 wherein:

the flexible air baffle is constructed from a compliant material that allows for variation in the gap dimension between the chassis and the adjacent surface.

13. The system according to Claim 11 further comprising:

an adhesive layer that firmly secures the flexible air baffle to the electronic device upper surface.

14. The system according to Claim 11 wherein:

the flexible air baffle is constructed from a material selected from among a group comprising closed-cell foam rubber, silicone, reinforced silicone, urethane,

urethane foam, polyurethane, foam sealant, rubber, butyl rubber, latex, vinyl, compliant metal, and reinforced foam.

15. The system according to Claim 11 wherein:

the flexible air baffle has an aperture coupling to an inlet air supply via an airflow pathway and otherwise extends in a solid wall to obstruct air flow.

16. The system according to Claim 11 further comprising:

a plurality of electronic devices filling all of the corresponding slots so that substantially all of the inlet air flow passes through the electronic devices to the exit.

17. The system according to Claim 11 further comprising:

at least one electronic device; and

at least one slot filler, the slot fillers having dimensions that emulate dimensions of an electronic device,

the electronic devices and slot fillers filling all of the corresponding slots so that substantially all of the inlet air flow passes through the electronic devices and airflow gaps overlying the slot fillers to the exit.

18. A method of controlling airflow in an electronic system comprising:

providing an electronic device having substantially planar upper and lower surfaces and extending from a first end to a second end, an air inlet vent formed in the upper surface proximal to the first end, and an exhaust vent formed in the upper surface proximal to the second end;

inserting the electronic device a controlled clearance beneath an overlying substantially planar surface; and

obstructing air flow between the air inlet vent and the exhaust vent using a flexible structural member that extends the controlled clearance from the electronic device upper surface to the overlying substantially planar surface.

19. The method according to Claim 18 further comprising:
enclosing the electronic device in a housing having an air inlet and exit on mutually opposing sides, the housing being otherwise substantially closed;
supplying a cooling airflow stream from the housing air inlet to the electronic device air inlet vent; and
venting exhaust from the electronic device exhaust vent to the housing exit, direct airflow from the housing air inlet to the exit being substantially otherwise obstructed.

20. The method according to Claim 19 further comprising:
enclosing the electronic device in the housing with a plurality of additional electronic devices having obstructed air flow between the air inlet vent and the exhaust vent using a plurality of flexible structural members, the housing being fully populated with the electronic devices so that substantially all airflow from the housing air inlet to the exit passes through the electronic devices.

21. The method according to Claim 19 further comprising:
enclosing the electronic device in the housing with at least one slot fillers having dimensions that emulate dimensions of an electronic device and/or at least one additional electronic devices, the housing being fully populated with slot fillers and electronic devices so that substantially all airflow passes through the electronic devices and airflow gaps overlying the slot fillers to the exit.

22. A system for controlling airflow in an electronic system comprising:
means for encasing a plurality of electronic devices, the electronic devices having substantially planar upper and lower surfaces and having an air inlet vent formed in the upper surface proximal to the air inlet cabinet side and an exhaust vent formed in the upper surface proximal to the exit cabinet end;
means within the encasing means for receiving the plurality of electronic devices arranged in a stack;

means for directing a cooling air stream flow over the plurality of stacked electronic devices from an air inlet to an exit; and

means for obstructing air flow between the electronic devices' air inlet vent and the exhaust vent so that substantially all airflow from the housing air inlet to the exit passes through the electronic devices.